

**REMARKS**

All pending claims have been rejected in the January 10, 2008 Office Action under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In making the Section 101 rejection, the Examiner states:

The applicant failed to provide antecedent basis for the claim terminology “computer readable medium.” Therefore, the question becomes whether non-statutory subject embodiments would be fairly conveyed to one of ordinary skill in the art given the terminology utilized. It would appear to be reasonable to interpret medium for “encoding one or more data structure” as fairly conveying signal and other forms of propagation or transmission media to one of ordinary skill in the art.

In addition, the Office Action objects to the specification as failing to provide antecedent basis for the claim term “computer readable medium.”

Thus, the only issues raised in the January 10, 2008 Office Action relate to the term “computer readable medium” and to the phrase “computer readable medium encoded with one or more data structures.” Except for the objection and the Section 101 rejection relating to this terminology, the Office Action indicates that the claims are allowable over the prior art of record (paragraph 6).<sup>1</sup>

**Objection to the Specification**

The term “computer readable medium” appears throughout the specification, and therefore provides an antecedent basis in the claims for that term. For example, please refer to paragraph [0003], lines 2-3, which reads:

The term "information collection" is used herein in a broad sense and, unless the context indicates otherwise, encompasses databases, information bases, knowledge bases, bodies of

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<sup>1</sup> Earlier Section 101 and prior art rejections were not repeated in the January 10, 2008 Office Action, and hence are deemed by Applicants to have been withdrawn.

information, etc., stored on a computer readable medium (electronic, magnetic, optical, etc.) or otherwise accessible by a computer device. (Emphasis supplied.)

*See also*, the abstract and paragraphs [0012], [0013], [0024], and [0092] and [0120].

It is submitted that the phrase “computer readable medium encoded with one or more data structures,” which includes the term “computer readable medium,” similarly has support and an antecedent basis in the specification. “Computer readable medium” has support and an antecedent basis in the specification as pointed out above. “Encoded with one or more data structures” has support and an antecedent basis in the specification as follows. Paragraph [0047] of the application refers to a topic tree “*encoded* as a discrete hierarchical *construct*” and paragraph [0051] refers to a construct such as a “*data structure*.” Paragraph [0022] states that the “information collection preferably includes a *construct* for implementing a topic tree.” In addition, paragraph [0047] refers to an information collection having “identifiable *data structures*,” and paragraph [0003] states that information collection encompasses databases, information bases, knowledge bases, bodies of information, etc., stored on a *computer readable medium*.” It is submitted that, together, the foregoing provides support and an antecedent basis in the specification for the phrase “computer readable medium encoded with one or more data structures.”

The meanings of the concerned term and phrase are known in the art. For example, both the term “computer readable medium” and the phrase “computer readable medium encoded with a data structure” are used in *MPEP* ¶ 2106. Please refer to the discussion below of the Section 101 rejection.

Therefore, it is respectfully requested that the objection to the specification be withdrawn.

**Section 101 Rejection**

In making the Section 101 rejection in the January 10, 2008 Office Action, the Examiner refers to a “medium for ‘encoding one or more data structure.’” But the claims do not recite simply a “medium,” but rather a “computer readable medium encoded with one or more data structures,” and no claim recites a “medium for encoding one or more data structures.”<sup>2</sup>

As demonstrated above, the specification provides support and an antecedent basis for both the concerned term and the concerned phrase, and the meanings thereof are accepted by, for example, the *MPEP*. In fact, the *MPEP* specifically recognizes that a “computer-readable medium encoded with a data structure” is statutory under Section 101. *See MPEP ¶ 2106.01*, as quoted and highlighted below:

In contrast, a claimed ***computer-readable medium encoded with a data structure*** defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, ***and is thus statutory.***<sup>3</sup> (Emphasis supplied.)

This alone should be sufficient for the Examiner to withdraw the Section 101 rejection. However, insofar as the Examiner's position is that “computer readable medium encoded with one or more data structures” encompasses an electromagnetic signal and therefore is non-statutory, the Examiner has not provided any legal or technical authority for this.

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<sup>2</sup> Independent claims 2, 4, 29, 30, 31 and 36, all claim a computer readable medium “encoded with one or more data structures.” Independent claims 46 and 47 claim an information storage and retrieval system comprising a computer readable medium “encoded with one or more data structures.” Independent claims 50 and 51 claim a method of accessing an information collection stored on a computer readable medium, which is “encoded with one or more data structures.” Independent claims 56 and 57 claim a method for encoding a computer readable medium “with one or more data structures.”

<sup>3</sup> The pending claims include the functional relationships that render them statutory under Section 101.

In contrast, the **MPEP** specifically states that such a phrase is statutory, distinguishes between a computer readable medium and a signal, and does not consider a computer readable medium to be an electromagnetic signal. *See MPEP ¶ 2106.01*, as quoted and highlighted below:

When nonfunctional descriptive material is recorded on some *computer-readable medium, in a computer or on an electromagnetic carrier signal*, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a **computer-readable medium, in a computer, or on an electromagnetic carrier signal**, does not make it statutory. (Emphasis supplied.)<sup>4</sup>

When nonfunctional descriptive material is recorded on some *computer-readable medium, in a computer or on an electromagnetic carrier signal*, it is not statutory and should be rejected under 35 U.S.C. 101. (Emphasis supplied.)

Referring separately to storage on a computer readable medium and to storage on an electromagnetic carrier signal in the quoted passages above, the **MPEP** distinguishes between them. In fact, **MPEP ¶ 2106.01 I**, states “a *claimed computer-readable medium encoded* with a computer program is a *computer element*” (emphasis supplied), and the same applies to a computer readable medium encoded with a *data structure*. Thus, it is submitted that the phrase “a computer readable medium encoded with one or more data structures” does not encompass a propagated electromagnetic carrier signal.

Insofar as the Examiner may be contending that “computer readable” in the term “computer readable medium” should be disregarded, and that the claim is non statutory because

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<sup>4</sup> The pending claims include the requisite functional relationships, unlike the situation referred to in the quoted passages which are cited herein simply to demonstrate that material recorded “on a computer readable medium” and material recorded “on an electromagnetic carrier signal” are treated differently.

“medium encoded with one or more data structures” in his view embraces signals and other forms of propagation or transmission media, here too the Examiner has not provided any basis or explanation for this. Meanwhile, Applicants have demonstrated that the term “computer readable medium” is a recognized term and that “computer readable medium encoded with data structure” is a recognized and statutory phrase.

**Closing**

The Examiner has not offered any evidence at all to support his contention that it would be reasonable to interpret “medium for ‘encoding one or more data structure’ as fairly conveying signal and other forms of propagation or transmission media to one of ordinary skill in the art,” and why “computer readable” in the claim term “computer readable medium” can be disregarded. Also, the Examiner has not explained why the specification does not provide an antecedent basis for the term “computer readable medium” when the term appears many times in the specification.

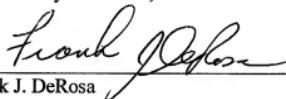
Applicants have demonstrated above that: there is support and an antecedent basis in the specification for the claim term “computer readable medium” and the phrase “computer readable medium encoded with one or more data structures”; the term and phrase are recognized by the **MPEP**, including that a “computer readable medium encoded with a data structure” is statutory under Section 101 (provided the claim includes some functional relationships to the encoded material, which the pending claims do); and the **MPEP** treats a computer readable medium separately from an electromagnetic carrier signal.

Based on the foregoing, it is respectfully requested that the Section 101 rejection of the claims and the objection to the specification be withdrawn, and that the application be allowed.

If the Examiner maintains the objection to the specification based on an alleged lack of support or an antecedent basis in the specification for the term “computer readable medium” or

the phrase "computer readable medium encoded with one or more data structures," or if the Examiner maintains the Section 101 rejection based on "computer readable medium encoded with one or more data structures" being non-statutory, he is respectfully requested to provide evidence to support his position(s).

Respectfully submitted,



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